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## **Precautions**

### **Responsibility**

- The vendor is not responsible for any kind of data or personal loss caused by the product out ordering.
- SECU-EYE is the device to record the video data when the car accidents are occurred but does not guarantee the perfect video recording of any kinds of car related accidents.

### **Caution in using the SD memory card**

#### **Turn off the power when insert or remove the SD memory card!**

- In general, the memory card has it's own product life cycle. Using the memory card for a long time may cause the problem in recording the new data. In this case, please replace the memory card to new one. The vendor will not be responsible for this kind of memory problem and the loss of data caused by the memory problem.
- Do not keep or use the product under high temperature, high humid or easy rotten place.
- Please keep the product in the storage case when store or moving to avoid the data loss by the electric static or abnormal outer power.
- Do not remove the SD memory card during recording or formatting the data. This may cause the data loss.
- The vendor is not responsible for the loss of recording data.
- Please save the important data onto the other storage devices or media like hard disk driver, CD or any kind of portable memory.

## Features

### Video recording

1. Video recording in general  
Record the all video data (according to customer preset option) of rear/front side of the car when turn on the engine.
2. Record the video when accident occurred  
When the accident occurred during the driving the car, the built-in G-sensor will detect automatically and record the video and save the data at the separate folder from the accident situation.
3. Manual recording  
When the driver push the "emergency button", record the video like the accident situation.
4. Parking mode record  
After turn-off engine, record the video for 1 minute during the preset parking time when a certain the motion is recognized. This video data will be saved at the separate folder.
5. Safe off mode  
Record the video for 1 minute when the engine is turn off. This will help the safety of the driver from the sudden accident when turn off the engine.
6. Privacy mode  
Driver can choose and turn off the camera (front or rear) and the voice recording to protect the privacy of the passenger.
7. Infrared sensor  
Built-in infrared sensor will help the rear(in)side recording at dark night.
8. JPEG image capture  
Support the "capture and JPEG image save" from the video moving picture data.
9. AVI file support  
Customer can save the video data as an AVI file format using the default PC program on the provided SD memory card.
10. Video output  
Support the AV-Out for the AV-In (standard jack) enabled device like PMP or GPS Navigation.

**Store the driving information**

Record the driving information with video data. This will help to analyze the driving history and customer's driving habits.

**1. GPS data**

Location/velocity and date/time.

**2. G-sensor information**

Sudden acceleration, sudden stop, deep curve and sudden impact or shock during the driving.

**Play the accident data**

Play or replay the memorized driving data (video & sound) and can easily save into JPEG or AVI file using the default provided PC program. This may be used the certified accident evidence.

**△ When the SD memory card is full, the existing recorded video data will be erased and overwrite the new video in (first-in first-out) base.**

## Safety caution

Please read and keep the safety guide lines to protect the product and physical damage or loss.

### During the driving

- ! Do not operate or stare at the product during the driving. This may cause the accident.
- ! Do not increase the product volume too high. This may cause to hinder hearing the outside sound of the car and cause the accident.

### GPS signal receive

- ! Install the product on the open sky view area of the car. And do not hide the product. Hiding the product may cause the weak GPS signal.
- ! The GPS receiver operating temperature is -20~70°C. Please keep the operating temperature in winter and summer season.

Following condition will make the problem in receiving the GPS signal.

- Some physical items are laid on the GPS antenna.
- Metal sun shade film on the front side window of the car.
- Other electromagnetic wave generating devices in the car which will impact on the GPS signal. For example wireless engine starter, a certain type of MP3 or CD player, GPS speed gun detector, etc..
- Non sky view area (in the middle of high rising building, bridge, tunnel, underground parking area, etc...)
- If the GPS signal is not good enough during the driving, it will take a longer time to recognize the current location signal again.

## **Product storage and operation**

! The operation temperature is -20~70°C.

Keep the adequate operation temperature in summer and winter time..

The storage temperature is -35~85°C. Long time storage at the high temperature may cause the battery explosion.

! Do not keep the product inside the car for a long time with strong sunshine.

This may cause the serious damage to the product.

! Do not reassemble, modify or repair intentionally.

Vendor is not responsible for the problems by the above intentions by the user.

! Do not use the water or other chemical fluids in cleaning the product.

This may cause the electric shock, mal functions and fire.

! Do not force the strong impact or do not put the strange items into the product.

This may cause the electric shock, mal functions and fire.

! Do not change the location of the product frequently.

This may cause the low qualified recording data.

! Strong sun screen film will cause the dim recording result or distort the image.

Check the video recording result first before the driving.

! The video recording will be disturbed inside the tunnel, strong back light and dark night.

The right video recording will be possible under the normal situation.

! Turn off the power when insert/remove the SD memory card.

This may cause the damage to the recorded data.

**! Cool down the temperature of inside of car before drive if the temperature of inside of car is over 40°C**

## Components

The outer look image may be different from the actual product.

(The image can be changed without any prior notice to improve the product.)



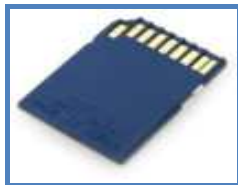
**Main system** (including install stand)



**Cigar jack power** (including the cable)



**Additional Emergency button** (optional)



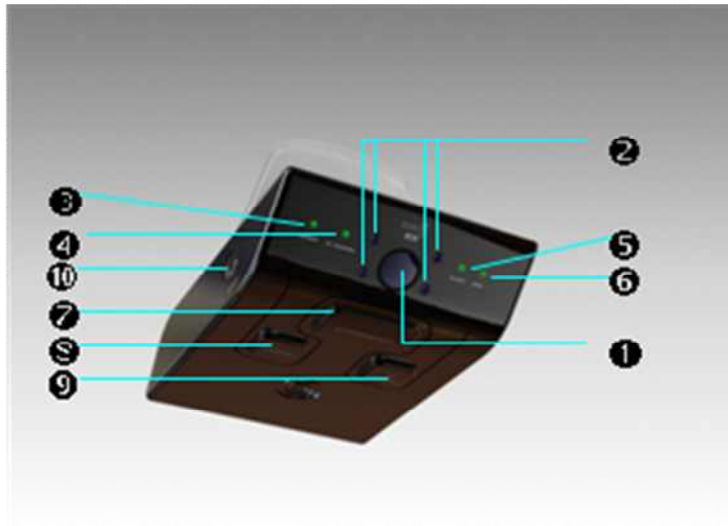
**SD memory card**



**User manual (CD)**

## Parts description

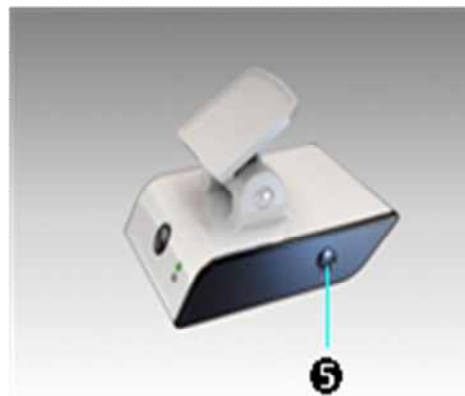
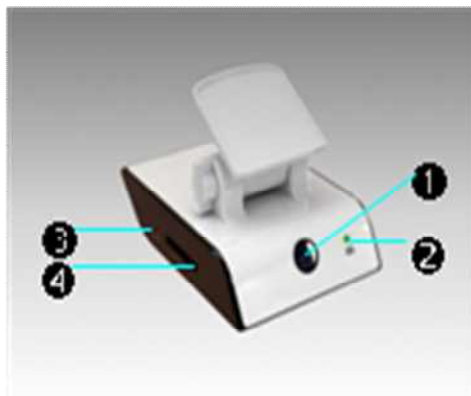
System - front side



❶	<b>IN CAMERA</b>	Camera to record the inside of the car.
❷	<b>Infrared light</b>	Support the dark/night recording.
❸	<b>POWER LED</b>	Describe the power ON status of the SECUEYE system. Describe the activity status of the Event record, Manual record, Reset, Upgrade.
❹	<b>IN CAMERA LED</b>	Describe the ON/OFF status of IN CAMERA.
❺	<b>AUDIO LED</b>	Describe the inside audio recording status - ON/OFF.
❻	<b>GPS LED</b>	Describe the GPS signal status.
❼	<b>EMERGENCY button</b>	Start the manual recording mode.
❽	<b>AUDIO button</b>	ON/OFF the inside audio recording.
❾	<b>IN CAMERA button</b>	ON/OFF the inside video recording.
❿	<b>POWER</b>	ON/OFF the main power of the SECUEYE system.



### System – rear side



❶	<b>OUT CAMERA</b>	Camera for the front side video recording of the car.
❷	<b>OUT CAMERA LED</b>	Describe the ON/OFF status of the OUT CAMERA.
❸	<b>RESET button</b>	Reset the system..
❹	<b>SD memory card slot</b>	Slot for the SD memory card. (SD memory card should be inserted to start the system.)
❺	<b>Power button</b>	ON/OFF the main power of the SECY-EYE system. (The button may not work manually according to the preset recording mode.)

### Cigar jack power cable



❶	<b>DC OUT</b>	Power cable for the DC out.
❷	<b>AV OUT</b>	AV cable port to connect to the other PMP, Navigation systems, etc... to see the video image to record.

# Installation

## Precaution

Please check and keep the following steps for the safety.

- Should turn off the engine and remove the car key before installation!
- The power should be connected to the Cigar jack cable only (DC12V~24V)!

## Installation process

1. Insert the SD memory card before the installation. (see the picture xx).
2. Select the right place (not to hinder the driver's vision) and attach the product properly using the provided sealing tape.
3. Connect the Cigar Cradle into the Cigar jack and connect the "constant power line cable" into the car emergency light of the car fuse box.
4. Release the fixed knob and detach the stand from the main system.
5. Insert the power cable connector to the system and turn on the car key. If the Power LED is on, the installation process will be started.
6. Check the status of Power LED to be ON. GPS LED will be ON when the proper GPS location information is received.
7. Attach the stand shaft and system main body. Control degree of the OUT Camera and fix the knob for the proper position.

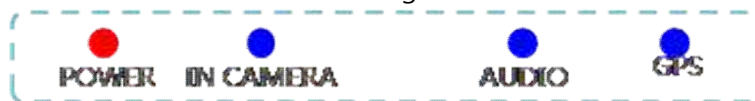
## How to use

### SECU-EYE operation

1. Check the SD memory card properly inserted into the system body.
2. Turn on the engine.
3. If the setup file is not on the SD memory card, the LED will be blinked and will start the setup process.
  - Start to create the setup file.
  - After creating the setup file, start to adjust the X,Y,Z default value of GPS.

This process may take about one minute.

- A few seconds after adjusting the GPS default value, the voice command will be started and start to record the video in general mode.



4. If the setup file is on the SD memory card, the voice command will be started after a few seconds and start to record the video in general mode.



5. Receiving the GPS signal, the GPS LED will be blinked.



6. If the G-sensor detects the more than a certain level impact during the driving, it will save the event record.



7. If the driver pushes the Emergency button during the driving, it will save the manual record.



8. (In case of using Cigar jack only) when turn off the engine, the "safe back home" mode will be started after a few seconds and run for one minute with voice command.

- If the Cigar jack is disconnected the POWER LED will be blinking in blue color.
- If the Cigar jack is connected, POWER LED will be blinking in red color.

Voice command : "Change to Parking Mode"



9. (In case of using Cigar jack) after completing the "safe back home" mode, the "Parking mode" will be started and save the video record during preset parking time.



10. If the new version of firmware is detected on the SD memory card, the upgrade will be started after the voice command. During the upgrade process, the 4 LEDs will be blinking as followings. After completing the firmware upgrade, the voice command will notice it. Voice command: "Start the upgrade process."

-> "Complete the upgrade. Push the reset button"



11. 11 Start to adjust the X,Y,Z value of GPS signal.
- Turn of the engine after insert the SD memory card.
  - Turn off the S1 power.
  - The process will be started after the push the Emergency call button.

During this process the POWER LED will be blinking as followings.

This process will take about one minute.



△ Please keep this process on the flat plain location. If not, the X, Y, Z data of GPS may be distorted.

12. The whole process is completed and the product is working properly.
13. If anything wrong, the voice command will say "Push the reset button". If push the reset button, the SECU-EYE will be restarted.

### **SD memory card folder and file**

1. Set up folder
  - The required setup files are saved for the SECU-EYE main system.
2. Video folder
  - The video data will be saved on the folder by the time (based on GMT).
  - Folder name: Date\_Time (YYYYMMDD\_HH)
    - ex) 2009.03.15. 08:30AM → D20090315\_08
3. Video file (based on GMT)
  - The video file will be saved by one minute unit.
  - File name : Date\_HrMinSec.extension  
(YYYYMMDD\_HHMMSS.esf/YYYYMMDD\_HHMMSS.sub)
    - ex) OUT camera (forward side) : 20090303\_083040.esf
    - IN camera (rear side) : 20090303\_083040.sub

### **When the SD memory capacity is full?**

1. Delete the saved video file in following way and make the memory space automatically:  
Delete the oldest files on the SD memory card. (First In First Out method).  
Keep the event folder files.
2. Delete the empty video folders.

△ Old video data can be deleted automatically when the memory space is full without any notice.  
So keep the important data on the other storage media like CD/HDD, etc.....

### **Remove the SD memory card**

1. Turn off the system main power button.  
(The system power can be turned off during the parking mode.)
2. Check the LED light status – all LED light should be shut-down.
3. Remove the SD memory card from the main system.  
Voice command: "Check the SD memory card. Will stop the recording."
4. Follow the above process (1.2.3) at the parking mode too.
5. There will be a voice command if remove the SD memory card is removed from the system during the operation.

△ After save the data, insert the SD memory card to the system again. The recording will not work without SD memory card.

## PC program

"SECU-EYE Player" is a software program to play the recorded video/sound data on the simple user interface.

### Minimum spec. for SECU-EYE Player

<b>OS</b>	Microsoft Windows 2000, XP, or Vista
<b>Web browser</b>	One of the following browser - Internet explorer 1.0 or higher version - Google Chrome 1.0 or higher version - FireFox 2.0 or higher - Flock 1.0 or higher
<b>CPU</b>	Pentium 4 / 1 GHz or higher
<b>Memory</b>	512 MB RAM or bigger
<b>HDD Space needed</b>	100 MB or bigger

### How to play ?

1. Turn off the main power and remove the SD memory card.
2. Insert the SD memory card to the SD card reader.
3. Connect the above SD card reader to the PC.
4. Run the "search" on the Window.  
(Window will detect SD memory card as a portable device)
5. Select the SD memory card.
6. Run "SECU-EYE Player.exe" file.
7. SECU-EYE Player will be run.

△ If there are not any information regarding the memory card, there will be pop-up message to assign the SD memory card.

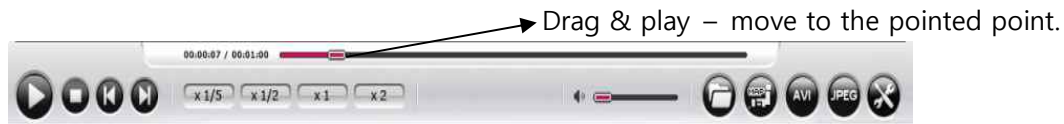
△ The install-version will be provided by the vendor's web page.

## Main user interface




❶	<b>File name</b>	The name of the file playing.
❷	<b>Minimize the window, Finish the player</b>	
❸	<b>OUT Camera video</b>	Forward side recorded video by SECU-EYE
❹	<b>IN Camera video</b>	Rear(or in) side recorded video by SECU-EYE
❺	<b>File List button</b>	The List of Files will be displayed.
❻	<b>Data Information</b>	Date, recording time, frame/sec information of the playing video data.
❼	<b>G-Sensor</b>	The G-Sensor data when the data recorded.
❽	<b>SPEED &amp; GPS Information</b>	The speed and GPS location data of the recorded time.
❾	<b>Player button</b>	Control the video play.
❿	<b>Open the file, Connect to Map, Convert the file, Set-up</b>	


## Play the video



### >>Hold

Push  icon during the play.

The play will be hold.

The icon will be changed to .

### >>Stop

Push  icon.

The play will be stopped.

### >>Previous/Next move.

Push   icon.

Move to previous/next screen.

### >> Enlargement

Click the IN/OUT Camera recorded data.

The selected data will be played on the new screen window and control the window size.



△ Some old version of PC program cannot play the recorded data. In this case, download the proper version from the vendor's web site.

## G-Sensor Information

Display the G-Sensor data value change of the recorded time.

(Left bottom graph of PC program.)

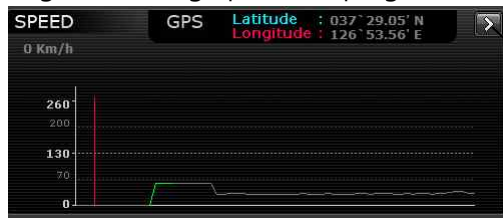




## SPEED Information

Display the speed data of the recorded time.

(Right bottom graph of PC program.)



[Speed screen – graph]

Click ">" and move to the graph screen.

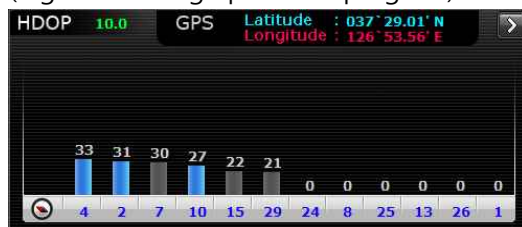


[Speed change – gauge display]

## GPS information

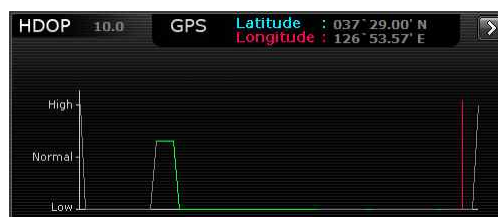
Display the GPS information and HDOP variables for one minute.

(Right bottom graph of PC program)



[GPS number and sensitivity]

Click ">" and the display screen will be changed.



[HDOP value graph]

## Play list

Click the ► icon and display the file list for the play.

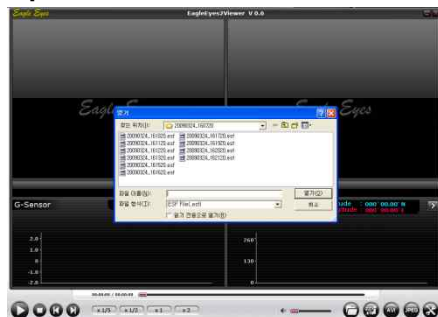


The file will be listed according to the serial of the recording time.

There are 4 types of files.

- Normal type: Recorded data during the driving/parking mode.
- Event type: Recorded data when the outside impact is sensed by the G-Sensor.
- Manual type: Recorded data when the driver pushed the Emergency Button/Emergency call button.
- Motion type: Recorded data when the motion is sensed during the park mode by the Motion detector.

## Open the file



1. Click the Folder icon and open the file search.
2. Double click the selected file to open.

You can open the multiple files at once.

### >> Open the one file

Double click the selected one file.

### >> Open the multiple files

Select the multiple files with "Ctrl" on keyboard.

Click "Open" .

△ If too many files are selected at once, it'll take a long loading time.

## Connect to map

Can check the GPS location data and displayed the moving track connecting to the map.



Click "map" icon and the GPS information will be displayed on the map.

You can move, minimize and maximize the map.

(Map/Satellite/Satellite & Map)

## File conversion (AVI/JPEG)

Convert the recorded data to general moving picture AVI file format and can display without PC program player.

1. Click "AVI" icon and convert the play/hold data into the AVI file.
2. Display the AVI file converting process.
3. Select the folder location to save the converted AVI file.
4. After completing the conversion, display the saved file information and its location.



[AVI conversion pop-up]

Click the "Cancel" during the conversion process to cancel. No other option choice during the conversion.

The conversion time may be varied according to the file size.

Convert to JPEG file format.

1. Click "JPEG" icon and it will capture the play/hold/stop data and save as the JPEG file.
2. After completing the conversion, display the saved file information and its location.
3. Can change the saved folder location..



[JPEG conversion pop-up]

## **Configuration set up**

SECU-EYE support the configuration pre set-up tool to customize the various setup options.

### **1. PC Viewer**

- > Language
  - Set up the language of the PC program.
- > Unit of speed
  - Set up the unit of the speed.
  - Km/h, Mile/h
- > AVI converter
  - Set up the AVI conversion options.
  - OUT Camera data only, IN Camera data only, IN&OUT Camera data
  - Include the sound data or not.
- > Saving location
  - Set up the default saving location for the converted files by PC Viewer.
  - The system preset default location is "PC Viewer" on the main window.

### **2. SECU-EYE**

- > Camera
  - Select the Camera to be recorded.
  - OUT or IN or Both
- > Quality of video
  - Select the quality level of video.
  - Hi/Mid/Low
- > Quality of audio
  - Select the audio data.
  - Audio ON/OFF
- > Parking mode
  - Select the Parking mode option.
  - Continuous record, Motion detect watch mode.
- > Time set of Parking mode
  - Select the recording time of Parking mode.
  - 2hrs, 4hrs, 8hrs.
- > G-Sensor sensitivity
  - Select the sensitivity of G-sensor
    - The sensitivity level of the outer impact by the G-sensor. (1~10)
- > Custom setting of GPS
  - The customer can set the X,Y,Z value of the GPS.

> AV OUT

- Select the Camera to use the AV OUT port.
- OUT or IN Camera.

△ The continuous recording at the Parking mode is possible when the power cable is connected to the car fuse box (emergency light).

**3. Info.**

> SD memory card information

- The information for the SD memory card..

> Version information

- The version of PC Viewer
- The version of Firmware

## Version upgrade

1. Turn off the main power and remove the SD memory card.
2. Insert the SD memory card into the SD card reader.
3. Connect to the PC.
4. Use the Windows search.
5. Select the SD memory card.
6. Connect to the following web site and log-in.  
[http:// www.secueye.co.kr](http://www.secueye.co.kr)
7. Download the update file and copy to the SD memory card.
8. Remove the SD memory card from the SD card reader and insert to SECU-EYE system.
9. Connect to the Cigar jack and turn on the car engine.
10. Follow the voice command.  
"Start the Upgrade."  
(Cannot record the data during the upgrade process.)
11. The system power will be turned off automatically after complete the upgrade process.
12. Push the Reset button and turn on the system.  
(if the upgrade is successful, there will be a voice command "Start the recording".)

△ For the more detailed information, please visit to [http:// www.secueye.co.kr](http://www.secueye.co.kr)

## Specification

<b>Camera</b>	2 Cameras. 0.3M CMOS digital sensor
<b>Resolution</b>	640X480(VGA) up to 30fps(dual mode 10-12fps)
<b>GPS</b>	Built in GPS
<b>G-sensor</b>	Built in 3 dimensional sensor (Impact, quick start, quick stop)
<b>Data storage</b>	SD memory card (min 512MB - max SDHC 32GB)
<b>Audio</b>	Built in mike
<b>Power / consumption</b>	DC12~24V(Cigar jack/fuse) / 1.5A

△ The above spec can be changed without notice for the quality improvement.

## Warranty

Product		Model	
Purchase date		Serial No.	
Customer name		Telephone #	
Customer address			
Purchase place		Telephone #	
address			

## Warranty period

### Coverage

- This product is well produced with high quality control and pre test.
- If the system is out of order during the normal operation and usage during the warranty, vendor will repair for free.  
(But, the service fee may be charged with following cases.)
  - Any problem by the customer misuse or mistakes.
  - Any problem by the natural disasters.
  - In case of not to follow the manual properly.
  - Any change/modification/revision by the non authorized/certified person.
- After the warranty period, the service fee will be charged to the customer.
  - Please call or bring to the purchasing shop when the problem is occurred and service is required.

### Refund

- Follow the general refund regulations by the local government



- Within 2 weeks from the purchasing date.

**Replacement**

- If any legal and reasonable cases occurred, the customer can request the replacement to the same (or vendor's similar) product during the warranty period.

**Customer support center**

- Address:
- Telephone:
- Fax:
- Email:
- Working hour: 09:00~17:00 (Mon- Fri) / Holidays off

Web site: [http:// www.secueye.co.kr](http://www.secueye.co.kr)